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CLAIM SET AS AMENDED

1. (currently amended) A camera tracking system for a virtual television or video studio for determining the position and/or orientation of a recording camera, comprising:

[[-]] at least three emitter devices for emitting electromagnetic radiation, the emitter devices being adapted to be mechanically coupled with the recording camera[[,]];

[[-]] at least two detector devices for detecting the position of the emitter devices based upon the electromagnetic radiation emitted by the emitter devices, each detector device being adapted to detect plurality of emitter devices[[,]];

[[-]] a computer unit for calculating detected values based on an evaluation of ~~evaluating~~ the electromagnetic radiation detected by the detector devices and emitted by the emitter devices ~~and for determining the position and/or the orientation of the at least three emitter devices relative to the at least two detector devices,~~; and

[[-]] a gyroscope adapted to be coupled to the emitter devices and supplying measured values pertaining to an orientation of the emitter devices, the gyroscope being connected to the computer unit, the computer unit processing the measured values from the gyroscope and the detected values for the determination of the position and/or the orientation of the emitter devices ~~to correct~~

~~the orientation of the emitter devices as determined on the basis of the detecting devices~~.

2. (currently amended) The camera tracking system of claim 1, ~~characterized in that~~ wherein the emitter devices are active transmitter devices for emitting the electromagnetic radiation towards the detecting devices or passive reflector devices for reflecting electromagnetic radiation towards the detector devices.

3. (currently amended) The camera tracking system of claim 1 ~~or 2~~, ~~characterized in that~~ wherein the emitter devices are arranged on a support member adapted to be coupled with the recording camera.

4. (currently amended) The camera tracking system of claim 3, ~~characterized in that~~ wherein the emitter devices are arranged on the support member such that they radiate the electromagnetic radiation from a common side surface or from two side surfaces disposed angularly relative to each other, in particular substantially at right angles.

5. (currently amended) The camera tracking system of claim 3, ~~characterized in that~~ wherein the support member is a ring with an upper front face and a laterally extending circumferential face

adjoining the front face.

6. (currently amended) The camera tracking system of claim 5, ~~characterized in that~~ wherein the emitter devices are disposed on the front face of the ring.

7. (currently amended) The camera tracking system of claim 5, ~~characterized in that~~ wherein the emitter devices are also disposed on the circumferential surface.

8. (currently amended) The camera tracking system of claim 1, ~~characterized in that~~ wherein the emitter devices each have a spherical emitter surface from which the electromagnetic radiation is radiated and/or from which it is reflected.

9. (currently amended) The camera tracking system of claim 8, ~~characterized in that~~ wherein the emitter devices each have a planar emitter surface from which the electromagnetic radiation is radiated and/or from which it is reflected.

10. (currently amended) The camera tracking system of claim 9, ~~characterized in that~~ wherein the emitter surfaces lie in a common side surface or in the two angled side surfaces of the support

member.

11. (currently amended) The camera tracking system of claim 1, ~~characterized in~~

~~that~~ wherein a calibration device is provided that emits electromagnetic radiation and is designed, in particular, as a light source preferably emitting in the infrared range, the calibration device being detectable by the detector devices and the studio camera, and

~~that~~ wherein the computer unit [[-]] determines the geometric relationship of the detecting devices relative to each other from the signals supplied by the detector devices upon movement of the calibration device and determines the geometric relationship of the detector devices relative to the studio from the signals supplied by the detector devices with the calibration device standing still, and [[-]] determines the relative position of the nodal point of the studio camera to the arrangement of the emitter devices coupled to the studio camera, from the signals supplied by the studio camera upon detecting the calibration device.

12. (currently amended) The camera ~~calibration~~ tracking system of claim 1, ~~characterized in that~~ wherein the emitter devices comprise light sources particularly emitting light in the infrared range,

and that the detecting devices are designed as detecting cameras for the light from these light sources.

13. (currently amended) The camera tracking system of claim 12, ~~characterized in that~~ wherein the light sources of the emitter devices are located in recesses of the support member, and that the recesses are each covered by a cover that forms the emitter surface.

14. (currently amended) The camera tracking system of claim 13[[.]], ~~characterized in that~~ wherein the covers diffusely radiate the light from the light sources.

15. (currently amended) The camera tracking system of claim ~~one of claims~~ 12 ~~to 14~~, ~~characterized in that~~ wherein the light sources are light emitting diodes, each emitter device being associated with a plurality of light emitting diodes that may be switched individually, in groups or commonly.

16. (currently amended) The camera tracking system of claim ~~2 and~~ 8 ~~or 9~~, ~~characterized in that~~ wherein the emitter surfaces of the emitter devices are designed as reflectors for electromagnetic radiation.

17. (currently amended) The camera tracking system of claim 1, ~~characterized in that~~ wherein the emitter devices are distributed irregularly.

18. (currently amended) The camera tracking system of ~~one of claims 1 to 17~~ claim 1, ~~characterized in that~~ wherein the emitter devices are distributed irregularly.

19. (new) A camera tracking system comprising:

an emitter unit that is fixedly attached to a camera, the emitter unit emitting electromagnetic radiation;

a detector unit for detecting the electromagnetic radiation in order to provide detected values that are based on a position of the emitter unit;

an orientation determination device, being fixedly attached to the camera, for supplying measured values; and

a computer unit for receiving the detected values and the measured values, the computer unit calculating a position of the camera on the basis of the detected values and the measured values.

20. (new) The camera tracking system according to claim 19, wherein the measured values, which are supplied by the orientation determination device, are based on a pivot angle, a pitch angle, or

a rolling angle of the camera.

21. (new) The camera tracking system according to claim 19, wherein the orientation determination device is a gyroscope.

22. (new) A method of tracking a camera, comprising:

detecting, by a detector unit, electromagnetic radiation that is emitted by an emitter unit, the emitter unit being fixedly attached to the camera;

providing detected values that are based on the electromagnetic radiation detected by the detector unit;

providing measured values that are provided by an orientation determination device, which is fixedly attached to the camera; and

calculating a position and/or an orientation of the camera by a computer unit on the basis of the detected values and the measured values.